

(Almost) Everything You Ever Wanted to Know About the SKS

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Subject: 2. History

The 7.62x39 Cartridge

The Second World War saw many changes in military tactics and technology. Use of motorized infantry support allowed for rapid movement on the battlefield, in sharp contrast to the stalemated trench warfare of the Great War. In response, both sides produced and deployed large numbers of pistol-caliber submachine guns. The practical range of these weapons was limited to close ranges, however, and beyond 100 yards or so all armies relied upon rifles and machine guns firing cartridges dating from the last decades of the 19th century or the first of the 20th.

While the First World War had confirmed the need for infantry weapons accurate and deadly at ranges of 1000 yards and beyond, in the European and Asian theaters of World War II most engagements occurred within 350 yards. The pressure on designers was to produce a weapon that combined the long-range lethality of "full-power" cartridges fired from rifles and machine guns with the massed, rapid fire of the submachine gun.

Late in the war, the Germans introduced a new class of weapon: the Sturmgewehr; storm, or assault, rifle. This weapon fired a substantially shortened 7.92mm cartridge (7.92x33mm), designated the PP43. Capable of propelling a 125 grain projectile to a nominal muzzle velocity of 2100fps, the 7.92 Kurz was far more effective than the

standard 9mm Parabellum pistol cartridge used in submachine guns by the Wehrmacht, although not as lethal as the longer range 7.92mm round fired by the Mauser K98 rifle. Besieged with supply problems from the outset of the war, the German army formulated a plan in 1944/45 to replace all existing bolt-action and self-loading rifles with the MP43/44, StG 44 series of selective-fire rifles. The plan was thwarted by Allied land and air offenses on the German production and supply system, however the German experiments had a profound impact on the postwar thinking of American, British, Belgian, Soviet, Spanish, and Swiss small arms designers.

The Soviets made greater use of the submachine gun than any other country during the Second World War. Infantry massed with large armored units found the PPSH41 and PPS43 submachine guns extremely effective. Out of this experience came the requirement for an Avtomat, an assault rifle. N.M. Elizarov and B.V. Semin developed an intermediate cartridge, the M43 7.62x39mm for this purpose.

The Simonov SL Rifle (SKS) ----- Ironically, perhaps, the first weapon chambered for the M43 cartridge was not a selective-fire assault rifle but a self-loading carbine, the Simonov-designed Samozaridnya Karabina Simonova Obrazets 1945g, or SKS45.

Sergei Gavrilovich Simonov was one of the last old guard Russian designers. Born in 1894, his first job upon leaving elementary school was in a foundry. In 1915 he attended a technician's course and was employed in 1917 in the assembly of the Federov-designed

Avtomaticeskaya Vintovka Federova, 1916g (Federov 1916 Automatic Rifle). After the Communist Party came into power he studied at the Moscow Polytechnic, leaving in 1924 to work at the Tula Arsenal. By 1926 he was an inspector of quality control at the Arsenal, and in 1927 he worked in the Design and Development Department under Federova. During World War II he designed a self-loading antitank rifle, the 14.5x114mm PTRS, scaled-down versions of which became the 7.62x54R SKS41 and 7.62x39 SKS45.

Although a bit of an anachronism, the SKS45 had broad appeal, and was adopted by many Communist Bloc nations, including East Germany (Karabiner-S), North Korea (Type 63 Carbine), Yugoslavia (M59/66 Rifle), and the PRC (Type 56 Carbine). Other nations using, but not manufacturing, the SKS included Afghanistan; Albania; Congo, People's Republic; Indonesia; Iraq; Laos; Lebanon (paramilitary forces);

Mongolia; Morocco; United Arab Republic (Egypt); Socialist Republic of Vietnam; and Yemen, People's Democratic Republic.

The Communist Chinese, apparently not anticipating the need to engage in the sort of massive, armored infantry conflicts envisaged for potential European conflicts, were especially enthusiastic about the SKS. Besides the basic Type 56 carbine, they

adopted an SKS-derived rotating bolt selective-fire assault rifle, the Type 68/72. These are readily identified by the presence of a selector switch on the right side of the rifle, forward of the trigger, and by a gas regulator knob extending from the forward part of the gas cylinder. As of 1980, PLA member Tang Wenlie was said to have developed an improved version of the Type 72 rifle utilizing fewer moving parts than its predecessors.

Sources: Jane's Infantry Weapons, 1975

Small Arms of the World, 1983

Subject: 3. Specifications, Simonov SL Rifle (SKS)

Cartridge:..... 7.62x39
Method of operation:..... Gas
Method of locking:..... Tilting block
Method of fire:..... Self loading
Method of feed:..... 10-round internal box magazine
Weight, unloaded:..... 8lb 8oz (3.85kg)
Length:..... 40.2 in (1,021mm)
Barrel:..... 20.5 in (521mm)
Rifling:..... 4 grooves, RH
Sights:..... Foresight: Post
Rearsight:..... Tangent notch
Muzzle velocity:..... 2,410 ft/sec (735 m/sec)
Rate of fire:..... 20 rounds/min
Range, maximum effective:..... 433 yds (400m)
Status:..... No longer used except for ceremonial purposes

Subject: 4. Disassembly and Cleaning

As many of these rifles come packed in heavy grease, a good cleaning is necessary before the rifle can be used. The following describes one procedure for cleaning a new, "gooped" rifle, but the information is applicable to general cleaning and maintenance.

Complete cleaning requires that the rifle be disassembled to an extent. All reassembly is in reverse order. Needless to say, you should first make certain that the rifle is unloaded: Pull the magazine catch back to swing the magazine open. Retract the bolt, inspect the chamber, and allow the bolt to return to battery.

A cleaning kit, consisting of a cleaning rod, drift, brush, and jag, is typically supplied with these rifles. The cleaning rod fits in a recess under the barrel. The other components fit in a tube, which also doubles as a wrench for the brush and jag, which has a combination "lid"/cleaning rod guide. This tube fits in a recess in the buttstock which is accessible via a spring-loaded trapdoor. To remove the kit, simply push in on the trapdoor and the tube, held under spring tension, will pop out. This will most likely result in minor injury the first couple of times you try, but the technique for safely removing the cleaning kit is quickly learned (unfortunately, it isn't readily described).

Field strip the rifle by rotating the receiver cover pin on the right rear of the receiver to the vertical position and pulling it out as far as possible. The receiver cover can now be pulled to the rear and off the rifle. Retract the bolt and lift the bolt carrier and bolt off the action.

The recoil spring is held captive by a guide rod. Simply pull it out of the bolt carrier. To disassemble the recoil spring assembly, compress the unsupported (bunched up) end of the spring slightly and remove the split washer holding it in place. The spring can now be removed and the two halves of the recoil spring guide separated. When reassembling the bolt assembly the unsupported end of the recoil spring goes inside the bolt carrier.

Disassemble the gas system by rotating the gas cylinder tube retaining pin, located on the right side of the rifle in front of the rear sight, up so that the attached lever is a bit short of vertical (about 45 degrees). The retaining pin lever has a small hole that accommodates the cleaning kit's drift to make this easier. Lift the rear of the upper hand guard free. Depending on how tightly your rifle is fitted you may have to jiggle the gas cylinder a bit to get it loose. The gas cylinder and attached hand guard can then be pulled back and off the rifle. The piston will drop from the gas cylinder. At this point, the op-rod (tappet) can be removed by rotating the retaining pin forward until it comes free. It is held under pressure by a return spring, so be careful not to let it fly away and/or into any of the more sensitive bits of your anatomy.

Disassemble the bolt by driving out the pin that runs through the bolt, holding the extractor and firing pin in place. Remove firing pin, extractor, and extractor spring. Take note of the orientation of the firing pin, since I'm told they can sometimes be installed upside-down, leaving the pin stuck in a protruding position.

With the bolt assembly removed, remove the trigger group by first putting the safety "on" (up) and pressing the dimpled "button" behind the trigger with a bullet tip or punch until the trigger group comes loose. This will most likely require the application of a considerable amount of pressure, so be persistent. When you reinstall the trigger group, again make certain the safety is in the "on" position or you'll never get it pressed back in place. Also, a large C-clamp may be useful for pressing the trigger group back home.

With the trigger group removed, you can remove the magazine and lift the action up and forward, free of the stock.

It's not a bad idea to at least partially disassemble the trigger group, although you can adequately clean it without doing so. Place the safety in the "off" (down) position. Cover the hammer with the cleaning kit "tube" for a better handhold. Press down on the disconnecter until it lines up with the sear (this is visible through a hole in the side of the trigger group), pull the trigger, and ease the hammer down. You can now remove the hammer and mainspring by pressing the hammer backward out of its supports and off the trigger group.

Soak the bolt, trigger group, and related parts in an oily solvent like kerosene, Ed's Red, etc. Diesel can also be used (and works very well), but you should take care to lightly oil any metal that's been cleaned thus.

You can clean out the inside of the bolt pretty well with a pipe cleaner. A few pipe cleaners and an old toothbrush will make short work of the trigger group.

Grease or oil the trigger group and reassemble. I suggest a little moly grease for sliding bearing surfaces and Dexron II ATF for axial bearings.

Before reassembling the bolt, wipe a thin coat of oil (I use straight Dexron II ATF) on the interior of the bolt (using a pipe cleaner) and on the firing pin. Once the bolt is reassembled, you should be able to shake it and hear the firing pin rattle about without any sticking.

It's a good idea, before chambering the first round in the magazine, to reach in and feel for a protruding firing pin. If it requires more than the slightest pressure to press the pin back in, disassemble, clean, and oil the bolt as described above. Bolt disassembly and cleaning should also be a fairly regular part of your cleaning regimen, especially after firing ANY Chinese or East European ammunition. If the rifle has been in storage for any length of time you should field strip and apply the "shake test" to the bolt before going to the field.

The cleaning procedures described above work well for small parts. The barrelled action is most easily cleaned (once the grease is pushed out of the barrel) by taking it to the local coin operated carwash and blasting it out with detergent. Rinse well with very hot water and oil.

Clean the bore in the usual manner (go ahead and get some more cleaning patches...you'll need them).

An old trick that sometimes works well for small, intricate parts and assemblies (works great for typewriters and adding machines) is a mixture of extremely hot water and detergent (it probably wouldn't hurt to throw in a little TSP), applied with a pump-up garden sprayer.

Wipe off the stock and hang it up in the sun for a couple of days, wiping down occasionally, to sweat out as much of the grease as possible.

Subject: 5. Operation

To load the rifle, the cocking handle to the right of the bolt carrier is retracted. If the magazine is empty, the bolt will be held open.

Ammunition comes in 10-round stripper clips which are placed in the clip guides in the front of the bolt carrier and the ammunition pressed into the magazine. The magazine may also be loaded or topped off, if necessary, by pressing individual rounds into place. With the magazine loaded, the bolt is pulled slightly back and allowed to fly forward, stripping and chambering the first round. As noted under "Disassembly and Cleaning," it's a good idea to get into the habit of reaching into the action and feeling for a stuck, protruding firing pin before chambering the first round.

The safety is located to the right and along the rear of the trigger guard. Pressing the safety forward and up places the rifle in the "safe" condition.

Pulling the trigger releases the hammer which drives the firing pin into the cartridge primer. Some of the gas driving the bullet forward is diverted through a port in the barrel where it impinges on the piston head, driving the piston backward. The piston bears against the op-rod (tappet) which strikes the bolt carrier. After about 8mm of free travel, during which gas pressure drops, the bolt carrier lifts the rear end of the bolt out of engagement with the receiver. The bolt assembly now travels back as a unit, extracting the spent cartridge and cocking the hammer. The extractor holds the spent cartridge against the bolt face until it contacts the ejector which throws the case out a port on the right of the receiver. The return spring then drives the bolt assembly forward, stripping and chambering a fresh round.

After the last round in the magazine has been fired, a stud on the magazine follower pushes up a bolt retaining catch which holds the bolt open.

Sights

The range is set by depressing the rear sight slide catch and moving the sight along the leaf until the leading edge of the sight is lined up with the line corresponding with the desired range (in meters). The rearmost position of the sight (marked "U" or "III") is a battle sight setting which covers all ranges to 300 meters for a man-sized target.

The front sight can be adjusted to zero the rifle. To do this, a special wrench or combination tool (available from many dealers) is required. The wrench is placed over the front sight post, which is moved up to lower the point of impact and vice versa. The front sight is drift adjustable for windage. Many combination tools provide a "clamp" arrangement for windage adjustments.

Subject: 6. How Safe is the SKS?

Recently, the SKS has received some unfavorable press in the United States (most likely the result of a couple of lawsuits filed in the state of California) as being unusually prone to accidental discharge or cyclic operation.

It is this writer's opinion that the vast majority of these incidents can be traced to improper reloading technique or poor maintenance. Protruding primers, too soft primers (i.e. large pistol primers substituted for rifle primers) or a sticky firing pin can lead to slamfires. A sear that is stuck in the forward position can also cause the rifle to go uncontrollably full auto.

Following the procedures described under "Disassembly and Maintenance" for cleaning the bolt and trigger group should be sufficient for avoiding most such problems. Nevertheless, things can still go wrong, and the following should be Standard Operating Procedure when first firing ANY self-loading firearm:

- Load one round in the magazine.
- With the gun firmly supported and pointing in a safe direction allow the bolt to fly forward chambering the round.
- Fire the round.
- Repeat with two rounds in the magazine, then three, then a full magazine. If there are no accidental discharges, the rifle can probably be considered safe.

Some rifles have longer firing pins than others. It has been reported that grinding a longer-than-necessary firing pin to a shorter length can lower the possibility of slam-fires.

Some rifles with defective trigger groups were imported into the U.S. by Century International Arms. If you have a Century rifle (identified by the importer's mark, CAI, on the receiver) and suspect it may be defective, you should have the rifle checked out by a gunsmith or contact:

Century International Arms, Inc.
P.O. Box 714
St. Albans, VT 05478
Tel: (802) 527-1252
Fax: (802) 527-0470
Customer Service: (800) 527-1252
Compuserve: 76260,115 (76260.115@compuserve.com)

And If the Worst Happens?

If your rifle should suddenly go cyclic, the most important thing to remember is: DON'T PANIC! Try to keep the rifle under control and pointed in a safe direction until it stops firing. So far as this writer knows, all of the injuries or deaths related to this sort of failure have been the result of shooters losing control of or dropping their rifles.

Subject: 7. Legal Stuff (USA)

In 1989, President George Bush banned the importation of "nonsporting" rifles, based on a list of cosmetic features. In 1990, the ban was expanded by Congress to include the manufacture of a non-importable gun using imported parts. This has been interpreted by the Bureau of Alcohol, Tobacco, and Firearms (BATF) to include modifications to an existing rifle.

The May, 1994 *American Rifleman* magazine featured an article on the subject which quoted Edward M. Owen, Jr., chief of the BATF Firearms Technology Branch, as writing:

"On Nov. 29, 1990, the Congress enacted Title 18 (of the United States Code), Chapter 44, Section 922(r) which states 'it shall be unlawful for any person to assemble from imported parts any semi-automatic rifle or any shotgun which is identical to any rifle or shotgun prohibited from importation under Section 925(d)(3)...'"

"As indicated the section became effective on Nov. 29, 1990. Therefore, any assembly, performed after the effective date of the section, which creates a semi-

automatic rifle that is prohibited from importation would be a violation of Section 922(r), IRRESPECTIVE OF THE DATE THAT THE FIREARM WAS IMPORTED. [Emphasis mine. This contradicts the common belief that rifles imported prior to 11-29-90 are immune from this legislation. -- B.H.]

"In answer to your specific questions, the following modifications to an SKS-type rifle would not be a violation of Section 922(r):

"Replace the existing stock and hand guard with a non-folding wooden or synthetic stock having either a Monte Carlo or thumbhole design.

"Attach a muzzle-mounted recoil compensator, provided that the device is not also designed as a flash suppressor.

"Replace the standard-configuration stock with a Monte Carlo or thumbhole style stock and replace the fixed magazine with a detachable magazine. This modification may be done provided that the bayonet mount is completely removed from the rifle.

"Replace the existing 10-round fixed magazine with a fixed magazine of larger capacity.

"Replace the existing 10-round fixed magazine with a fixed five-round magazine, or install a block in the well of the 10-round fixed to limit its capacity to five rounds.

"Replace the existing receiver cover with a cover having telescopic sight bases and/or rings.

"Replace the front and/or rear sight or install an ambidextrous safety."

This is probably NOT the last word on the subject. Please take note of R.F.'s comments that follow.

In May of 1994, facing criticism over the renewal of Most Favored Nation trading status for the PRC, President Bill Clinton banned the importation of "munitions" from China under the Arms Export Act.

"Munitions" is defined in the July 22, 1993 Federal Register as all firearms except "non-combat" shotguns and black powder guns, and all ammunition and components except for shotgun shells.

Subject: 8. OK, I'm Sold. What Should I Look For?

Subject: SKS FAQ/LEGALITIES

Date: 3 Feb 1994 09:29:53 -0500

What things should a generally uninformed (on this subject) shopper like myself look for?

Well, decent price, to begin with. The panic seems to be abating and the prices are dropping back to the pre-Brady level. I am considering going to the San Mateo Gun Show this weekend to check out the stock and prices, but may not due to being a bit ill.

Anyway, I wouldn't pay more than \$100 for any Chinese SKS. Period.

As far as QC goes, the most common things I see are sight assemblies and gas ports that are way off-axis. To make the thing hit the target, the entire front sight assembly has to be loosened and moved on the barrel, as in its improperly-installed position, there's no way the front sight can be adjusted enough to compensate. Refitting the front sight assembly is a pain in the butt and beyond the abilities of most non gunsmiths. Fortunately, you can pretty much eyeball this if you're careful - just carefully look down the barrel from either end and see if the front sight seems to be twisted appreciably to the right or left. If it looks pretty square, it'll be OK.

On the other hand, there's nothing you can do with a misaligned gas port but live with it. It's not that big of a thing, but it's disgusting to think about. At least it's not as serious in an SKS as it is in an AK.

The other thing is oversized bores. The nominal groove diameter is .311," but I have encountered barrels that slugged out as large as .316" which won't hurt anything or make the weapon unsafe, but will prevent the rifle from having decent accuracy. It's not easy to judge a good bore without slugging [taking a soft lead "slug" of a slightly larger diameter than the bore and driving it down the barrel with a strong cleaning rod or wooden dowel, then measuring the diameter with a micrometer], and usually you can't slug a bunch of SKSs at a gunstore or show. I guess the next best thing is to just take a fresh 7.62 bullet and see how far down it goes into the muzzles of several rifles and take the one that looks tightest. Probably most of them will be ok, but one will be noticeably larger in land diameter. Don't get that one.

Avoid examples that are nothing but a mass of sharp edges from unfinished machining and stamping, though fine finish is never encountered in Chinese examples anyway. This is a matter of degree, though I have seen examples that

were literally dangerous to pick up due to sharp, unpolished edges and burrs all over the rifle.

There is much hoopla about so-called "screwed-in" and "pinned" barrels, but this is of no practical consequence, as ALL barrels in SKSs are indeed threaded into the receivers, but earlier weapons had the barrel secured with a two-sided locknut. Later examples were secured by cheaper pins. If you know where to look, you can see the difference immediately.

There is also much said - with more practical basis - about "milled" and "stamped" steel. The difference is that earlier SKSs had their metal parts machined from blocks of steel. Later varieties had some assemblies replaced with sheetmetal stampings. Look at the trigger guard and see if it is sheetmetal or a machining. A milled weapon is nicer, though stamped parts will show up in an otherwise milled weapon and vice-versa.

Of course, the stocks are usually just hideous, unfit for even firewood, in my opinion. Try to find one that isn't so ugly it makes your eyes hurt, then refinish it with a nice polyurethane satin finish. I have seen some that have been made quite presentable this way. The wood tends to be extremely soft, so a good polyurethane coating will make the stock more durable.

The poor wood in the ChiCom SKS and AK stocks was no match for the climatic conditions in RVN. I personally never saw a trophy with much left of the stock. My personal favorite was _worm holes_! The cadre who led the attack on the US Embassy during Tet '68 told an interesting tale: The weapons for the assault were cached in the basement of a villa several months prior to the uprising. The day before the attack the team converged on the villa to retrieve their arms. Unfortunately for them, the cached AKs and SKSs had had their furniture completely consumed by _termites_! The assault on the embassy was carried out with stockless weapons gripped awkwardly with rags.

The SKS stock was replaced in small numbers by a fiberglass replica of the wooden original. These are referred to as the "red fiberglass" or "Vietnam" stocks, though they are not really a gaudy red, but a mahogany color. If I could be positively and officially assured that this stock wasn't a violation of 922(r), this would be my choice for a replacement, as they are available for under \$20 by mail in _Shotgun News_ and for not much more at gunshows.

Resist the temptation to refit the SKS you purchase with ANY aftermarket accessories, as these are being arbitrarily and irregularly designated violations of 922(r) by individual BATF agents at their personal whims. There are reports that even the aftermarket US made synthetic hunting stocks are now being wrongfully considered 922(r) violations. This is illegal and constitutes nothing but petty harassment of the sort the BATF has been infamous for years, but I'm personally not into courting a \$5000.00 fine and a felony conviction just to install some dumb add-on

of really dubious utility in the first place. LEAVE YOUR SKS THE WAY YOU BOUGHT IT...unless it had the bayonet installed by the dealer, in which case you had best remove it immediately, as an installed bayonet is formally and officially a 922(r) violation, making it good for an immediate confiscation of the weapon and felony prosecution of the owner.

One point that the overwhelming bulk of gun owners do not realize is the _extreme seriousness_ of these technical violations. They are used to the traditional discretionary approach of local police wherein persons of good character who are in unwitting technical violation of an obscure law, without criminal intent, are given a friendly warning to correct the infraction. This situation does not obtain in the case of technical violations encountered by the BATF.

The BATF exists to accrue a "body count" of petty technical violations against harmless gun owners who present no threat to BATF personnel or society at large. Being a "good guy" will not save you from being treated like a mass murderer by BATF agents. Please read the "BATF Snitch Speaks" cross-posts for a perfect insider's look at the BATF mentality. This information is in 100% agreement with my observation of the BATF over the past twenty years. I have personally never known of _one_ BATF action that was not the result of calculated entrapment or enforcement of obscure technical violations against non-criminals.

Personally, I make a point of being scrupulously legal in regard to Federal Firearms law, and try to make sure I do so by a broad margin. I have never had trouble with the BATF and I don't want to start now that they are off their leash and operating completely outside the law with impunity and the blessings of "Bloody Janet" Reno and the Clintons.

I suggest similar circumspection on the part of all gun owners.

Subject: 9. Russian vs. Chinese

Perhaps no topic has generated more debate among SKS afficianados. This writer has seen examples of both that ranged from good to downright awful. The best advice I can offer is "caveat emptor." Try not to buy any rifle without personally inspecting it first. In dealing with reputable mail-order distributors, the common US\$10-\$20 "hand-picked" fee is probably worthwhile.

In the U.S., the Russian rifles have the benefit of being on the Bureau of Alcohol, Tobacco, and Firearms' "Curio and Relic" list. This means that, so long as the rifle is kept in its original condition (i.e. no folding stocks, flash suppressors, etc.), it MAY be exempt from some of the more onerous applications of the law.

Some Russian rifles are also better stocked than their Chinese counterparts. For the casual (or perhaps not so casual) collector there's also the satisfaction of knowing that you own an "original."

All of this is somewhat moot in the U.S., however, as the importation of Chinese SKSs has been banned.